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Civil Engineering

AERIAL APPLICATION OF PESTICIDES

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(Mr. H. Wayne Fordham)
Supersedes AFR 91-22, 26 April 1976.

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(Col H. Dean Bartel)
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This instruction provides guidance for in-service and contract aerial application of pesticides projects at Air Force installations. It also provides guidance for the use of Air Force resources on other Federal properties, non-Federal properties, and in foreign countries. It implements AFPD 32-10, *Installations and Facilities*, 14 Apr 94, and Department of Defense Instruction (DoDI) 4150.7, *DoD Pest Management Program*, 22 Apr 96.

SUMMARY OF REVISIONS

This is the initial publication of AFI 32-1074, which replaces AFR 91-22, 26 April 1976. It updates, clarifies, and streamlines previous guidance on aerial application of pesticides; more fully emphasizes environmental impact and integrated pest management techniques for controlling pests; and rescinds forms EPA FWGPM-1 and EPA FWGPM-2.

1. Background . Application of pesticides from large aircraft permits rapid coverage of large areas and treating of areas inaccessible to ground-control equipment. It is particularly useful when high operational efficiency is necessary to control unexpected outbreaks of vector-borne disease, and unusual outbreaks of other pests.

2. Objectives:

- 2.1. Promote and support:
 - 2.1.1. Military readiness.
 - 2.1.2. Installation program planning and maintenance.
 - 2.1.3. Pollution prevention, conservation of natural resources, and environmental compliance.

2.1.4. Integrated Pest Management.

2.2. Provide well-trained, technically competent, aerial pesticide application personnel.

3. Responsibilities:

3.1. Secretary of the Air Force. DoDI 4150.7 tasks the Air Force to:

3.1.1. Maintain a large-area, fixed-wing aerial application capability to control disease vectors, vegetation, and pests of vegetation; and to treat oil spills in combat areas, on Department of Defense (DoD) installations, or in response to a declared emergency.

3.1.2. Train aerial pesticide application air crews and ground support personnel.

3.2. The Air Force Surgeon General (HQ USAF/SG): Provides coordination for Air Force worldwide aerial application of pesticides for disease vector control through MAJCOM-level and installation representatives.

3.3. The Office of the Civil Engineer, Headquarters United States Air Force (HQ USAF/ILE): Approves Air Force policy regarding the aerial application of pesticides. (National Guard Bureau/Civil Engineer [NGB/CE] approves Air National Guard [ANG] policy.)

3.4. Headquarters Air Force Civil Engineer Support Agency (HQ AFCESA) Pest Management Program Coordinator:

3.4.1. Develops guidance to implement Air Force aerial application of pesticides.

3.4.2. Coordinates with other service agencies on military aerial pest management programs.

3.5. Headquarters United States Air Force, Air and Space Operations, Directorate of Operations and Training, Air Force National Security Emergency Preparedness (HQ USAF/AFNSEP):

3.5.1. Processes non-DoD and DoD emergency or contingency projects.

3.5.2. Coordinates emergency aerial application requests with the Armed Forces Pest Management Board (AFPMB), HQ USAF/SG, and Headquarters Air Force Reserve Command, Branch of Current Operations, Division of the Directorate of Operations (HQ AFRC/DOOM).

3.5.3. Ensures foreign disaster relief aerial application projects are in compliance with DoD Directive 5100.46, *Foreign Disaster Relief*; and projects involving military support to civil authorities are in compliance with DoD Directive 3025.1, *Military Support to Civil Authorities* and AFI 10-802, *Military Support to Civil Authorities*.

3.5.4. Tasks subordinate commands to channel approved emergency aerial application projects to the 910 Airlift Wing.

3.6. Major Commands:

3.6.1. Civil Engineer Pest Management Personnel:

3.6.1.1. Provide consultation service to installations on aerial pesticide application.

3.6.1.2. Ensure that a designated Pest Management Consultant (PMC), who is certified in Aerial Application, DoD Category 11, approves all proposed pest management projects involving the aerial application of pesticides after coordination with the MAJCOM Surgeon General's office.

3.6.1.3. Inform installation Project Coordinator of project approval/disapproval and submit approved projects with documentation to the 910 Airlift Wing.

3.6.1.4. Certify individuals successfully completing DoD Category 11 Aerial Application certification training in accordance with DoDI 4150.7-P, *Department of Defense Plan for the Certification of Pesticide Applicators*.

3.6.2. HQ AFRC/DOOM:

3.6.2.1. Validates Air Force Reserve capability to perform aerial application missions.

3.6.2.2. Tasks the 910 Airlift Wing to perform aerial application missions.

3.6.2.3. Notifies mission requesters of mission approval or disapproval.

3.7. Installation Commander and Other Requesters. Installation commanders and other requestors will appoint a Project Coordinator for Aerial Spray Projects; and contact the 910 Airlift Wing, Aerial Spray, 757 AS/DOS, Youngstown Air Reserve Station, 3976 King Graves Road, Bldg 128, Vienna OH 44473-0910, when planning aerial pesticide application operations.

3.7.1. Project Coordinator:

3.7.1.1. Administrative Requirements:

3.7.1.1.1. Determines a need for aerial application.

3.7.1.1.1.1. For routine DoD projects, follows the guidelines provided in Attachment 3 for project approval. Once the project is approved, follows the request flow diagram in Figure 1 to obtain 910 Airlift Wing support.

3.7.1.1.1.2. To obtain 910 Airlift Wing aerial application support for: emergencies on DoD property; emergencies on non-DoD continental U.S. (CONUS) and outside continental U.S. (OCONUS) property; and contingencies; routes request as outlined in Figures 2, 3, or 4, as appropriate.

3.7.1.1.2. Coordinates actions to ensure the installation furnishes all pesticide supplies and personnel necessary for the project to include pesticide loading.

3.7.1.1.3. Arranges with the local weather detachment for weather service support.

3.7.1.1.4. Arranges for local transportation, billeting, aircraft parking and servicing, and any other services necessary to support air crews and aircraft.

3.7.1.1.5. Assists Public Affairs with notices using information available from the responsible unit for project execution.

3.7.1.1.6. For overseas installations outside U.S. jurisdiction, applies the final governing standards as developed under DoD Directive 6050.16, *DoD Policy for Establishing and Implementing Environmental Standards at Overseas Installations*, 20 September 1991.

NOTE:

After obtaining MAJCOM project approval, request individual routine spray missions from HQ AFRC/DOOM, 155 2nd Street, Robins AFB GA 31098-1635. Request emergency projects through the chain of command from HQ USAF/AFNSEP, 1480 Air Force Pentagon, Washington DC 20330-1480.

Figure 1. Procedure for Requesting 910 Airlift Wing Support of Routine Approved Projects on DoD Property.

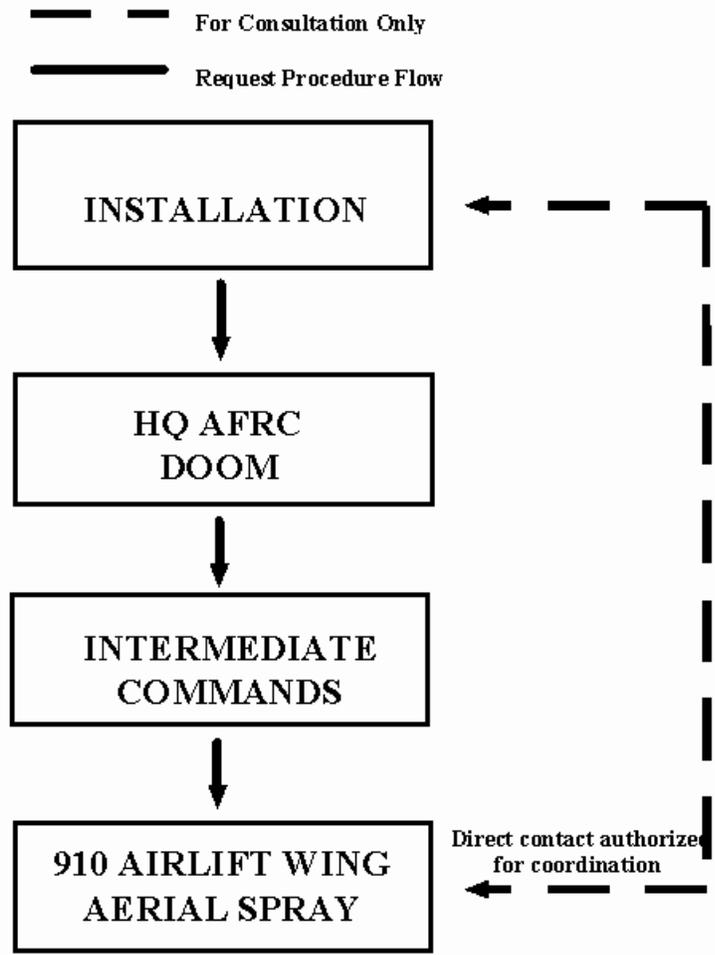


Figure 2. Procedure for Requesting Emergency 910 Airlift Wing Support on DoD Property.

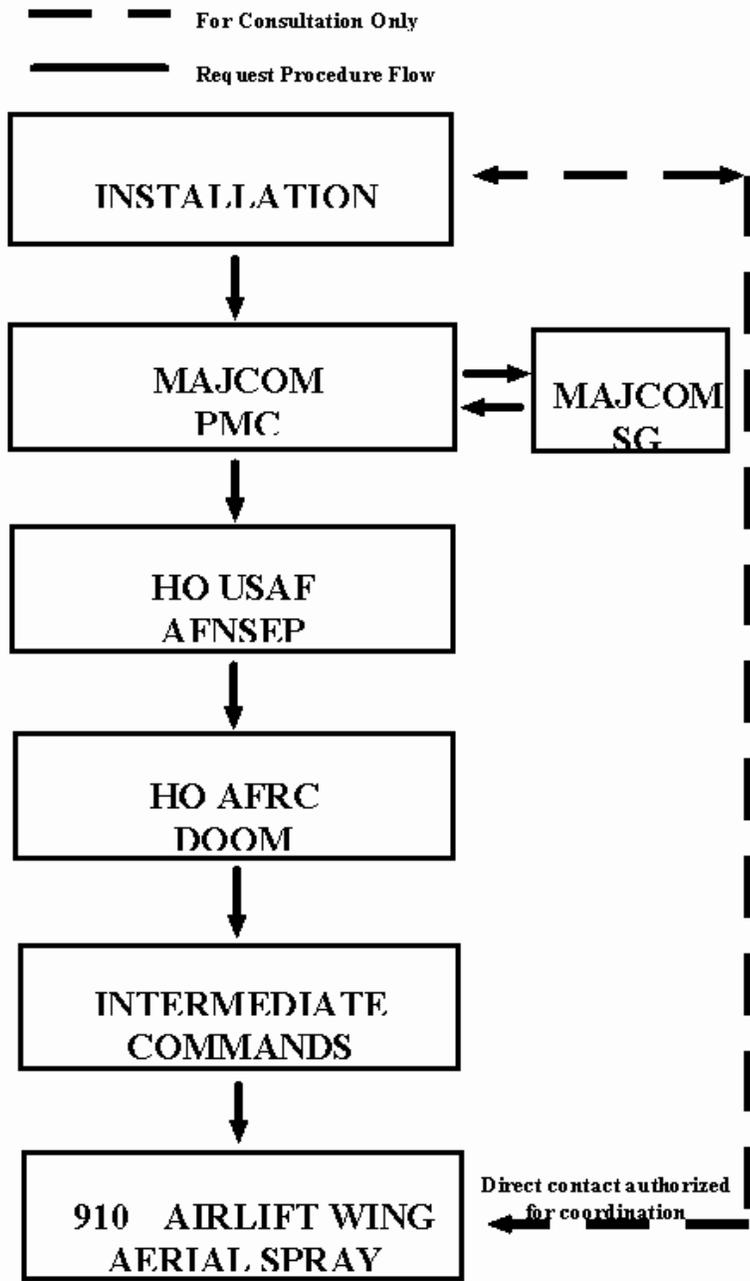


Figure 3. Procedure for Requesting Emergency 910 Airlift Wing Support on Non-DoD CONUS and OCONUS Property.

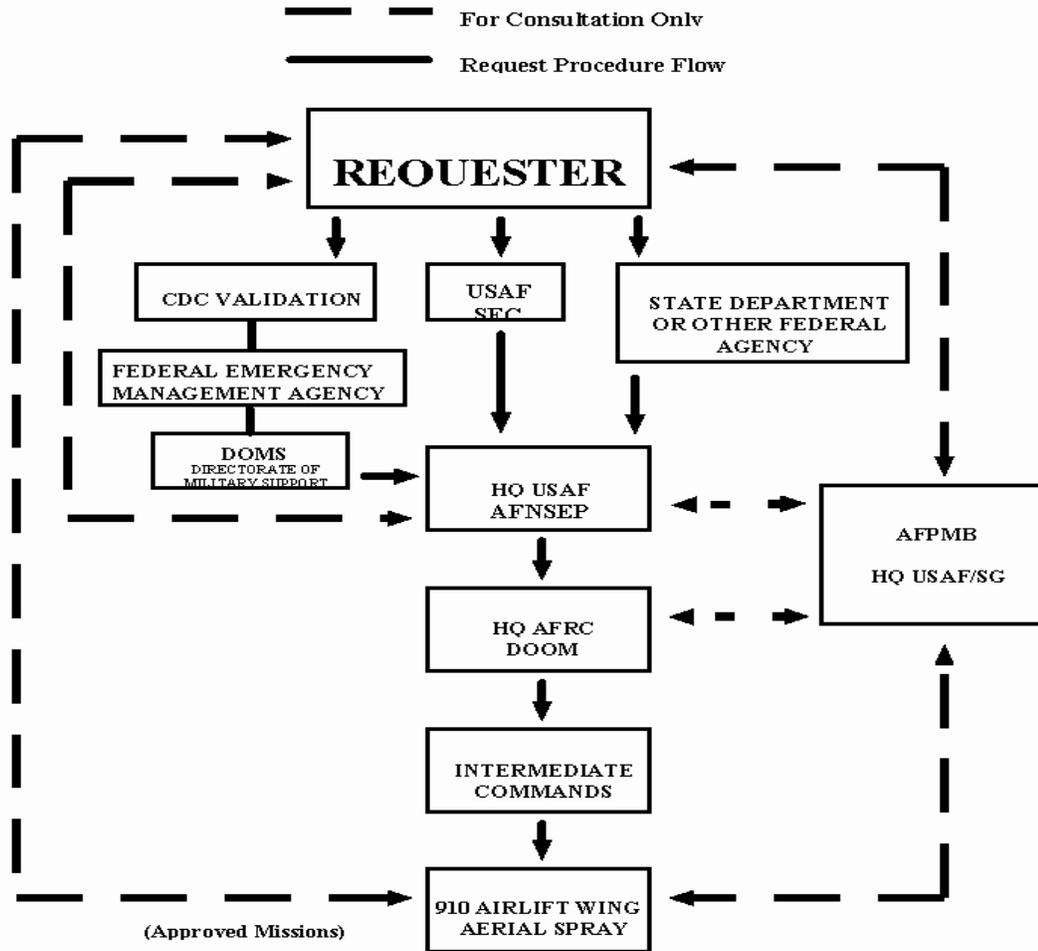
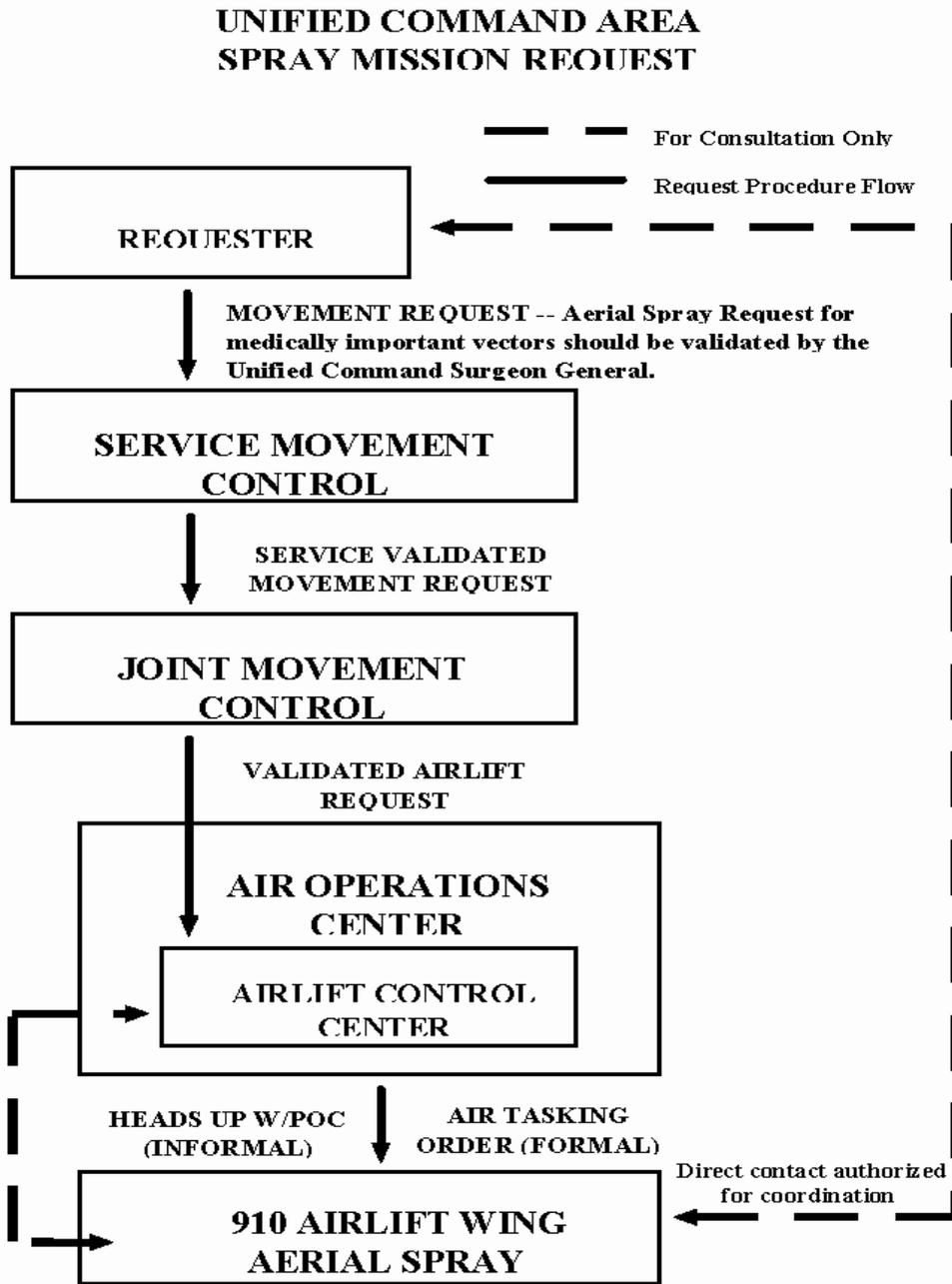


Figure 4. Procedure for Requesting 910 Airlift Wing Support in Contingencies.



3.7.1.2. Environmental Requirements:

3.7.1.2.1. Ensures a spray map with well-delineated spray and no-spray area is included in the Statement of Need.

3.7.1.2.2. Ensures pre- and post-treatment surveys are all accomplished to evaluate mission effectiveness. Surveys are normally done by SG personnel for medical-related pests and Base Civil Engineer (BCE) personnel for other pests.

3.7.1.2.3. Accomplishes environmental documentation, as required by the MAJCOM, which includes an Aerial Application Statement of Need. **NOTE:** An Aerial Application Statement of Need is required for all routine Air Force aerial spray projects, including contracts. All routine projects by other Service Agencies requiring use of Air Force aerial spray assets to control pests must also have an Aerial Application Statement of Need.

3.7.1.2.4. Coordinates with Aerospace Medicine to ensure medical, toxicological, and occupational health concerns are fully addressed.

3.7.1.2.5. Coordinates with government agencies to ensure compliance with applicable Federal, state, local, and host nation environmental laws and standards.

3.7.1.2.6. Requests legal review of project.

3.7.1.2.7. Sends the Aerial Spray Statement of Need and environmental documentation to the MAJCOM PMC who has certification in DoD Category 11, Aerial Application, for approval.

3.7.1.2.8. Ensures unused pesticides and empty pesticide containers receive proper storage and disposal.

3.7.1.2.9. Amends environmental documentation and Aerial Spray Statement of Need when scope of project changes.

3.7.1.3. Working Group. To accomplish the tasks in paragraphs 3.7.1.1 and 3.7.1.2, the Project Coordinator must form a working group consisting of representatives from the following organizations:

3.7.1.3.1. Aerospace Medicine (or Service Component equivalent).

3.7.1.3.1.1. Public Health.

3.7.1.3.1.2. Bioenvironmental Engineering.

3.7.1.3.2. Civil Engineer Pest Management.

3.7.1.3.3. Installation Environmental Coordinator.

3.7.1.3.4. Public Affairs.

3.7.1.3.5. Legal.

3.7.1.3.6. Others deemed necessary.

3.8. 910 Airlift Wing:

3.8.1. In accordance with DoDI 4150.7, provides the Air Force capability to apply pesticides over large areas using the Modular Aerial Spray System.

- 3.8.2. Deploys on each mission at least one Professional Pest Management Personnel (PPMP) trained for C-130 aerial pesticide application and certified in Aerial Application, DoD Category 11.
- 3.8.3. Serves as the DoD Training Center for Aerial Application Pest Control.
- 3.8.4. Provides consultation services and procedural guidelines for aerial application of pesticides to all DoD organizations regarding routine, emergency, and contingency projects.
- 3.8.5. Conducts operational testing of new pesticides, equipment, and techniques for aerial applications.
- 3.8.6. Maintains a DoD aerial application literature repository and computer deposition models.

WILLIAM P. HALLIN, LtGen, USAF
DCS/Installations & Logistics

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DoDD 3025.1, *Military Support to Civil Authorities*

DoDD 5100.46, *Foreign Disaster Relief*

DoDD 6050.16, *DoD Policy for Establishing and Implementing Environmental Standards at Overseas Installations*

DoDI 4150.7, *DoD Pest Management Program*

DoDI 4150.7-P, *Department of Defense Plan for the Certification of Pesticide Applicators*

Air Force Instruction 32-7061, *Environmental Impact Analysis Process*

Air Force Instruction 10-802, *Military Support to Civil Authorities*

Abbreviations and Acronyms

AFPMB—Armed Forces Pest Management Board

AS/DOS—Airlift Squadron/Director Operations Spray

BCE—Base Civil Engineer

CONUS—Continental United States

DoD—Department of Defense

DoDD—Department of Defense Directive

DoDI—Department of Defense Instruction

EA—Environmental Assessment

EIS—Environmental Impact Statement

HQ AFCESA—Headquarters Air Force Civil Engineer Support Agency

HQ AFRC/DOOM—Headquarters Air Force Reserve Command, Branch of Current Operations, Division of the Directorate of Operations

HQ USAF/AFNSEP—Headquarters United States Air Force, Air and Space Operations, Directorate of Operations and Training, Air Force National Security Emergency Preparedness

HQ USAF/ILE—The Office of the Civil Engineer, Headquarters United States Air Force

HQ USAF/SG—The Air Force Surgeon General

IPM—Integrated Pest Management

NGB/CE—National Guard Bureau/Civil Engineer

OCONUS—Outside the Continental United States

OPM—Office of Personnel Management

PDO—Publication Distribution Office

PMC—Pest Management Consultant

PPMP—Professional Pest Management Personnel

Terms

Aerial Application of Pesticides—Any application of pesticides by military or civilian, fixed or rotary-wing aircraft.

Aerial Application of Pesticide Mission—The actual aerial application of a pesticide over an approved area.

Aerial Application of Pesticide Project Statement of Need—A document prepared by a Professional Pest Management Personnel (PPMP) with certification in DoD Category 11, Aerial Application. If this document states that the proposed project is justified, preparation of an environmental assessment or environmental impact statement is initiated and prepared as required by the MAJCOM. **NOTE:** See Attachment 2 for Statement of Need.

Approved Aerial Application of Pesticides Projects—A proposed project that has received written approval from a DoD Category 11, Aerial Application, Certified PPMP at the requester's MAJCOM or higher command in accordance with DODI 4150.7. This PMPP approval is only provided after reviewing the Project's Aerial Application of Pesticides Statement of Need and appropriate environmental documentation. **NOTE:** See Attachment 3 for approval process.

Armed Forces Pest Management Board (AFPMB)—A Directorate of the Office of the Deputy Under Secretary of Defense (Environmental Security), the AFPMB recommends DoD policy, provides scientific advice, and enhances coordination among DoD components on all matters related to pest management.

Disease Vector—Any animal capable of transmitting the causative agent of a human disease; serving as an intermediate or reservoir host of a pathogenic organism; or producing human discomfort or injury, including (but not limited to) mosquitoes, flies, other insects, ticks, mites, snails, and rodents.

Environmental Documentation—An environmental assessment or environmental impact statement as defined for Air Force projects in AFI 32-7061.

Integrated Pest Management (IPM)— A planned program, incorporating continuous monitoring, education, record keeping, and communication to prevent pests and disease vectors from causing unacceptable damage to operations, people, property, materiel, or the environment. IPM uses targeted, sustainable (effective, economical, environmentally sound) methods including education, habitat modification, biological control, genetic control, cultural control, mechanical control, physical control, regulatory control, and where necessary, the judicious application of least-hazardous pesticides.

Pests—Arthropods, birds, rodents, nematodes, fungi, bacteria, viruses, algae, snails, marine borers, snakes, weeds, or other organisms (except for human or animal disease-causing organisms) that adversely affect readiness, military operations, or the well-being of personnel and animals; attack or damage real property, supplies, equipment, or vegetation; or are otherwise undesirable.

Pest Management Consultant (PMC)—Professional DoD pest management personnel located at Component Headquarters, field operating agencies, MAJCOMs, facilities engineering field divisions, or activities, or area support activities, who provide technical and management guidance for the conduct of installation pest management operations. Some pest management consultants may be designated by their Component as certifying officials.

Professional Pest Management Personnel (PPMP)—DoD military officers commissioned in the Medical Service or Biomedical Sciences Corps or DoD civilian personnel with college degrees in biological or agricultural sciences who are in a current assignment that includes pest management responsibilities exercised regularly. DoD civilian employees also shall meet Office of Personnel Management (OPM) qualification standards. Based on assignment, some professional pest management personnel are pest management consultants.

Attachment 2**AERIAL APPLICATION OF PESTICIDES STATEMENT OF NEED**

A2.1. Requirement. Completion of an Aerial Application of Pesticides Statement of Need is the first step required to obtain approval for an Aerial Application of Pesticides Project at a DoD installation. If the need is justified, an environmental assessment or environmental impact statement will be prepared in accordance with MAJCOM guidance. If the need is not justified, the proposed project can be terminated and considerable resources can be saved by not starting the environmental documentation process.

A2.1.1. Preparer. An Aerial Application of Pesticide Statement of Need will be prepared by a Pest Professional Management Personnel (PPMP) with certification in DoD Category 11, Aerial Application.

A2.1.2. Statement of Need Format:

A2.1.2.1. Introductory Headings:

A2.1.2.1.1. Name, address, and telephone number of preparer.

A2.1.2.1.2. Dates of on-site survey.

A2.1.2.2. Purpose and Decision for the Need:

A2.1.2.2.1. Purpose of project.

A2.1.2.2.2. Need justified or not justified.

A2.1.2.2.3. Rationale for decision.

A2.1.2.3. Aerial Application Project Parameters:

NOTE:

Complete this portion only if the need is justified.

A2.1.2.3.1. Pests and stages to be controlled.

A2.1.2.3.2. Recommended timing of application.

A2.1.2.3.3. Treatment area map with spray and no-spray/environmentally sensitive areas delineated.

A2.1.2.3.4. Acreage and description of spray and surrounding area.

A2.1.2.3.5. Recommended pesticides and application rate.

A2.1.2.3.6. Recommended applicator source with justification.

A2.1.2.3.7. 910 Airlift Wing aerial spray.

A2.1.2.3.8. Contractor.

A2.1.2.3.9. Other.

A2.1.2.4. Signature and Date.

Attachment 3**AERIAL APPLICATION OF PESTICIDE PROJECT APPROVAL PROCESS**

A3.1. Installation personnel identify the potential for using aerial application of pesticides to control problem pests.

A3.2. Installation personnel request that a Statement of Need be prepared by a PPMP certified in DoD Category 11, Aerial Application.

A3.3. The PPMP conducts an on-site visit and prepares an Aerial Application of Pesticides Statement of Need.

A3.4. An environment assessment (EA) or environmental impact statement (EIS) is prepared if the PPMP's Aerial Application of Pesticides Statement of Need justifies the need for an Aerial Application of Pesticides Project.

A3.5. The installation commander forwards an Aerial Application of Pesticides Statement of Need and appropriate environmental documentation to the MAJCOM PMC for project approval.

A3.6. Project is either approved or disapproved by the PMC with DoD Category 11, Aerial Application Certification. The PMC will coordinate all projects with the MAJCOM Surgeon General office. The PMC sends written project approval or disapproval back to the requesting installation.

A3.7. For projects to be accomplished by 910 Airlift Wing, approved project documentation is sent to 910 AW/DOS by MAJCOM or requesting installation personnel. Project documentation includes the Aerial Application of Pesticides Statement of Need, environmental documentation (EA or EIS), and a copy of written MAJCOM PMC approval for the project.

A3.8. Once a project is approved, it can continue until changes in the pesticide, application rate, or the spray area are desired; or environmental considerations require reexamination of the project.

A3.9. If a reexamination is performed with appropriate changes justified in the Statement of Need and environmental documentation, the project can be resubmitted for approval.